Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses;

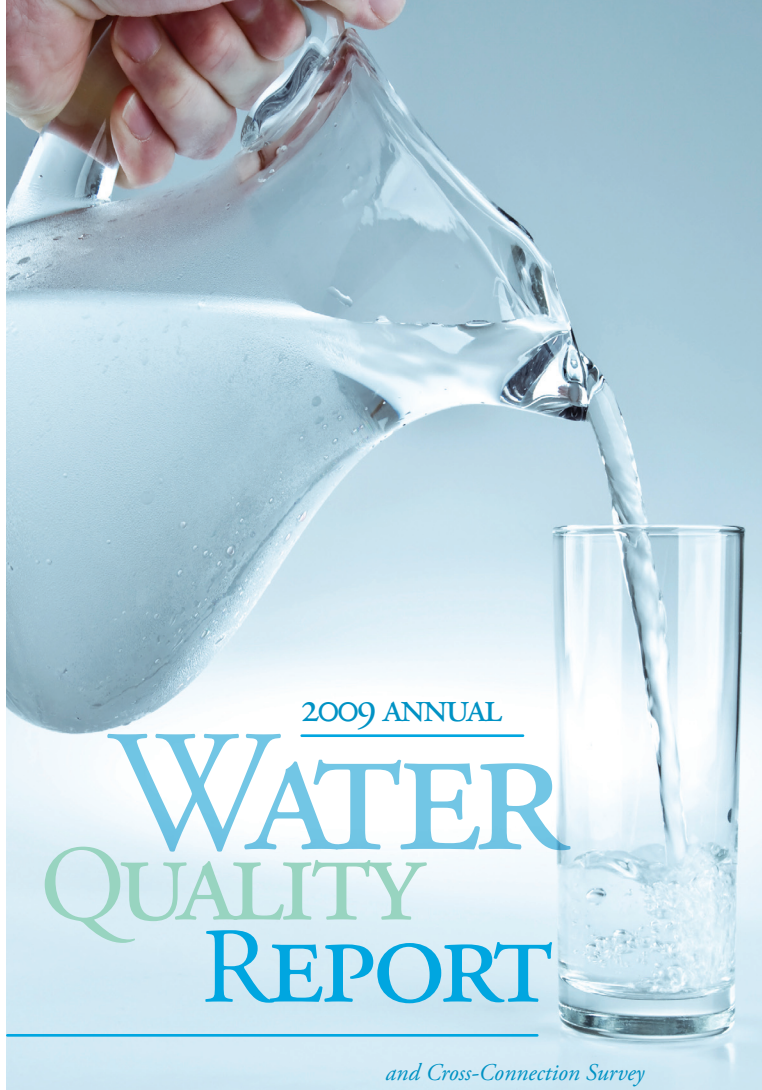
Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

City of Mattoon
208 North 19th Street
Mattoon, IL 61938

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.



2009 ANNUAL

WATER QUALITY REPORT

and Cross-Connection Survey

Presented By:
CITY OF MATTOON

PWS ID#: IL0290250

Maintaining High Standards

Once again we are proud to present our annual water quality report. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal drinking water standards. We continually strive to adopt new and better methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please share with us your thoughts about the information in this report. After all, well-informed customers are our best allies.

Important Health Information

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or www.epa.gov/safewater/hotline/.

Dear Water Customer:

The City of Mattoon is required to implement an active cross-connection control program. A cross-connection is any situation that allows a potable (safe) water source and a non-potable (contaminated) water source the opportunity to come into contact with each other. The Illinois Environmental Protection Agency (IEPA) and the Illinois Department of Public Health (IDPH) are responsible for ensuring that cross-connections do not occur through the enforcement of cross-connection control regulations. A cross-connection between potable and non-potable water sources may cause anything from contamination of plumbing to sickness and even death of consumers.

The first step in implementing an approved program is the passage of an ordinance that is then submitted to the IEPA. This ordinance has been passed and has been approved by the IEPA.

The second step in the program is a survey of all customers served by our public water supply. Included in this report is a survey that we hope you will complete and mail to the Mattoon City Hall, 208 N. 19th Street. You can also return the survey with your next water payment. If you prefer to answer online, the survey is also available on the City's Web site at www.Mattoon.Illinois.gov.

After we receive your survey, we will review the data and determine if an inspection of your plumbing is needed. If it requires an inspection, you will be notified by mail.

These surveys are required by the IEPA and must be completed. If we do not receive your completed survey, we may contact you to set a date at which time department personnel will conduct the survey.

We thank you for your cooperation on this matter. If you have any questions, please don't hesitate to call the Water Treatment Plant at (217) 234-2454.

Yours truly,

Dave Basham

Water Treatment Plant Superintendent

Community Participation

You are invited to voice your concerns about your drinking water at any Mattoon city council meeting. We meet the first and third Tuesday of each month at 6:30 p.m. at City Hall, 208 North 19th Street, Mattoon.

Source Water Assessment

Illinois EPA considers all surface water sources of public water supply to be susceptible to potential pollution problems, hence the reason for mandatory treatment of all public water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems), and shoreline erosion.

Drinking water for the City of Mattoon, Illinois (Facility No. 0290250), is supplied by the Mattoon community water supply (CWS). Lake Mattoon and Lake Paradise serve as the source of this drinking water. Water is obtained from two surface water intakes: the Lake Mattoon intake (IEPA #45113) and the Lake Paradise intake (IEPA #45112). Average daily pumpage is 2.2 million gallons per day to approximately 8,018 service connections and an estimated population of 19,787 people. Facilities purchasing water from Mattoon include the Village of Humboldt (0290150).

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Dave Basham, Water Treatment Plant Superintendent, at (217) 234-2454.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2009	2	2	0.039	0.039–0.039	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloramines (ppm)	2009	[4]	[4]	3	0.6–3	No	Water additive used to control microbes
Combined Radium (pCi/L)	2008	5	0	0.5	0.5–0.5	No	Erosion of natural deposits
Fluoride (ppm)	2009	4	4	0.9	0.88–0.88	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2009	60	NA	20	ND–23	No	By-product of drinking water disinfection
Nitrate[1] (ppm)	2009	10	10	6	0.33–6	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2009	80	NA	28	2.5–53	No	By-product of drinking water disinfection
Turbidity[2] (NTU)	2009	TT	NA	0.47	ND–0.47	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2009	TT	NA	98.39	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community (lead was not detected at the 90th percentile)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2008	1.3	1.3	0.029	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

STATE REGULATED SUBSTANCES[3]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Manganese (ppb)	2009	150	NA	2	2–2	No	Erosion of naturally occurring deposits
Sodium (ppm)	2009	NA	NA	7	7.2–7.2	No	Erosion of naturally occurring deposits; Used in water softener regeneration

[1] Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

[2] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

[3] Manganese and sodium are not currently regulated by the U.S. EPA. However, the state has set MCLs for supplies serving a population of 1,000 or more.

Definitions

AL (Action Level): The concentration of a contaminant that triggers treatment or other required actions by the water supply.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

Q&A

Which household activity wastes the most water?

Most people would say the majority of water use comes from showering or washing dishes; however, toilet flushing is by far the largest single use of water in a home (accounting for 40% of total water use). Toilets use about 4-6 gallons per flush, so consider an ultra-low-flow (ULF) toilet, which requires only 1.5 gallons.

Should I use hot water to make baby formula?

No. Hot water may contain impurities such as rust, copper, and lead that come from the hot water heater and plumbing in your house. These impurities can generally dissolve into hot water faster than into cold water.

What type of container is best for storing water?

Consumer Reports has consistently advised that glass or BPA-free plastics such as polyethylene are the safest choices. To be on the safe side, don't use any container with markings on the recycle symbol showing "7 PC" (that's code for BPA). You could also consider using stainless steel or aluminum with BPA-free liners.

Should I be concerned about what I'm pouring down my drain?

If your home is served by a sewage system, your drain is an entrance to your wastewater disposal system and eventually to a drinking water source. Consider purchasing environmentally friendly home products whenever possible, and never pour hazardous materials (e.g., car engine oil) down the drain. Check with your health department for more information on proper disposal methods.

How much emergency water should I keep?

Typically, 1 gallon per person per day is recommended. For a family of four, that would be 12 gallons for 3 days. Humans can survive without food for 1 month, but can only survive 1 week without water.

Where Does My Water Come From?

The City of Mattoon's primary source of drinking water is Lake Paradise. In an average year, the City will pump 800 million gallons of water out of Lake Paradise into our water system. We also rely on Lake Mattoon as a secondary source for our water.

Mattoon's Water Treatment Plant is located near Lake Paradise and was built in 1999. The plant has a capacity to treat seven million gallons of water each day.

Testing for Cryptosporidium

Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

The City recently completed twenty-four months of monitoring for *Cryptosporidium* in the untreated source water from our lakes. In twenty-two of those months, there was no trace of *Cryptosporidium* present in the field sample. Over the twenty-four months, the highest twelve-month-running-average was 0.033 oocyst/L.

CROSS-CONNECTION CONTROL SURVEY

The State of Illinois requires for the City of Mattoon to conduct a periodic survey of our water customers. We use this information to keep our water system safe and help us determine areas where plumbing inspections may be needed. We ask you to complete this form and return it to the city with your next water payment.

The form can also be mailed to: City of Mattoon-Water Survey, 208 N. 19th Street, Mattoon, IL 61938. Survey can also be completed online at www.Mattoon.Illinois.gov.

NAME: _____ **ADDRESS:** _____

(Check any that apply)

KITCHEN: Sink Faucet___ Ice Maker___ Sink Faucet w/ Sprayer___ Garbage Disposal___ Deep Sinks___ Other(describe)_____

BATH: Lavatory___ Toilet___ Bathtub___ Hot Tub___ Deep Sinks___ Bidet___ Other(describe)_____

OTHER: Boiler heat___ How Many Boilers? ____ Water-Cooled Air Conditioning System___

EXTERIOR: Outside Faucets___ How Many?____ Non-Freezing Type___ How Many?___ Lawn Irrigation System:___ Lawn Fertilizer System___

Portable High-Pressure Washer___ Private Wells___ Is well physically connected to the water system?___

COMMERCIAL: Mixing Tanks w/Overhead Fill Lines___ How Many?___ Mixing Tanks w/Bottom Fill Lines___ How Many?___ Sitz Bath___

Watering Troughs___ Fire Protection Systems___ Embalming Facilities___ Bulk Water Sales___ Other(describe)_____

OTHER COMMENTS: _____

CUT ALONG LINE AND RETURN